

Customer No.: 31561
Docket No.: 09919-US-PA-1
Application No.: 10/711,624

In the Specification

Please amend paragraphs [Para 14] and [Para 24] as follows.

[Para 14] This invention also provides a method of operating a silicon-on-insulator device. The silicon-on-insulator device includes a transistor and a control transistor. The transistor and the control transistor share a common source terminal. The drain terminal of the control transistor is electrically connected to the main body of the transistor. To turn the transistor on, a bias voltage V_{cc} is applied to the drain terminal of the transistor, a bias voltage V_{cc} is applied to the gate terminal of the transistor and 0V is applied to the gate terminal of the control transistor gate and the source terminal of the transistor. Thus, the main body of the transistor is electrically disconnected from the source terminal of the transistor so that the transistor has a characteristic of floating-body silicon-on-insulator device. Conversely, to turn the transistor off, a bias voltage V_{cc} is applied to the drain terminal of the transistor ~~so that~~ and 0V is applied to both the gate terminal and the source terminal of the transistor are at 0V. In the meantime, a bias voltage V_{cc} is applied to the gate terminal of the control transistor so that the main body and the source terminal of the transistor are electrically connected. Hence, the transistor has a characteristic of non-floating body silicon-on-insulator device.

[Para 24] The silicon-on-insulator device 100 is operated according to the following schemes: To switch the transistor 102 on, a bias voltage V_{cc} is applied to the drain terminal 106, a bias voltage V_{cc} is applied to the gate terminal 108 and 0V is applied to the source terminal 110 of

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the transistor 102 and the gate terminal 112 of the control transistor 104. With this voltage setup, the main body of the transistor 102 and the source terminal 110 are electrically disconnected. The transistor 102 has a characteristic of floating-body silicon-on-insulator device and hence produces a higher opening current.